TECHNOLOGICAL CAPABILITIES FOR THE GLOBAL WAR ON TERRORISM

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AGENDA

- Transformation at USSOCOM
- Technology Programs
- Transition to Acquisition
- Where We’re Going

SOAL-T TECHNOLOGY PROGRAM MISSION

To Provide the Technological Means Enabling Special Operations Forces to Achieve and Maintain the Operational Advantage Over All Adversaries Regardless of Theater of Employment or Conditions

FULL SPECTRUM FORCE:
From Masters of No Tech/Low Tech Solutions to Leading Edge Technologists

TRANSFORMATION PILLARS

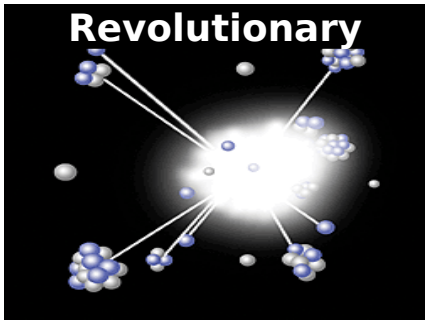
- **Strengthening Joint Operations**
- **Exploiting U.S. Intelligence Advantages Through Multiple Intelligence Collection Assets**
- **Experimenting in Support of New Warfighting Concepts and Capabilities Through Wargaming and Exercises**
- **Developing Transformational Capabilities Through Increased and Wide-ranging Science and Technology**

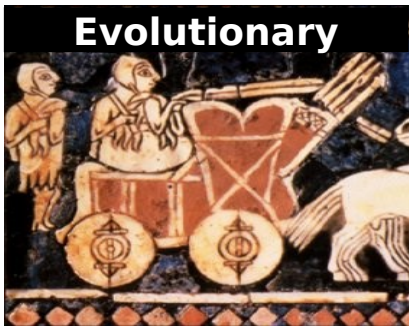
SIX OPERATIONAL GOALS

- **Protecting Critical Bases of Operations and Defeating CBRNE**
- **Assure Information Systems and Conduct Effective IO**
- **Project and Sustain U.S. Forces in Distant Environments**
- **Deny Enemies Sanctuary Through Persistent Surveillance, Tracking and Rapid Engagement**
- **Enhance the Capability and Survivability of Space Systems**
- **Leverage Information Technology and Innovative Concepts**

USSOCOM PERSPECTIVE ON TECHNOLOGY

- **Leveraging Those Critical Technologies Giving Us a Decided Advantage**
- **Identifying Leap-ahead Technologies That Will Result in Revolutionary Systems**
- **Exploiting Emerging Leading-edge Technologies**
- ***Significantly Enhancing the Human Dimension***
- **Leveraging Relevant Technology Projects**
- **Seeking to Infuse Technology Into Concepts**





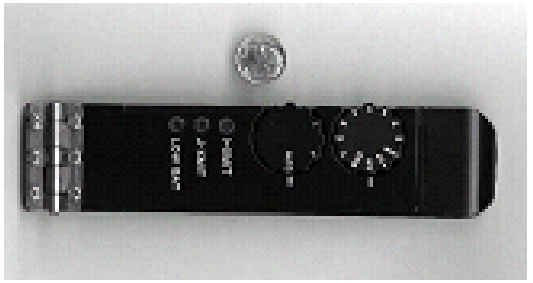
TECHNOLOGY PROGRAMS

Special Operations Technology Development

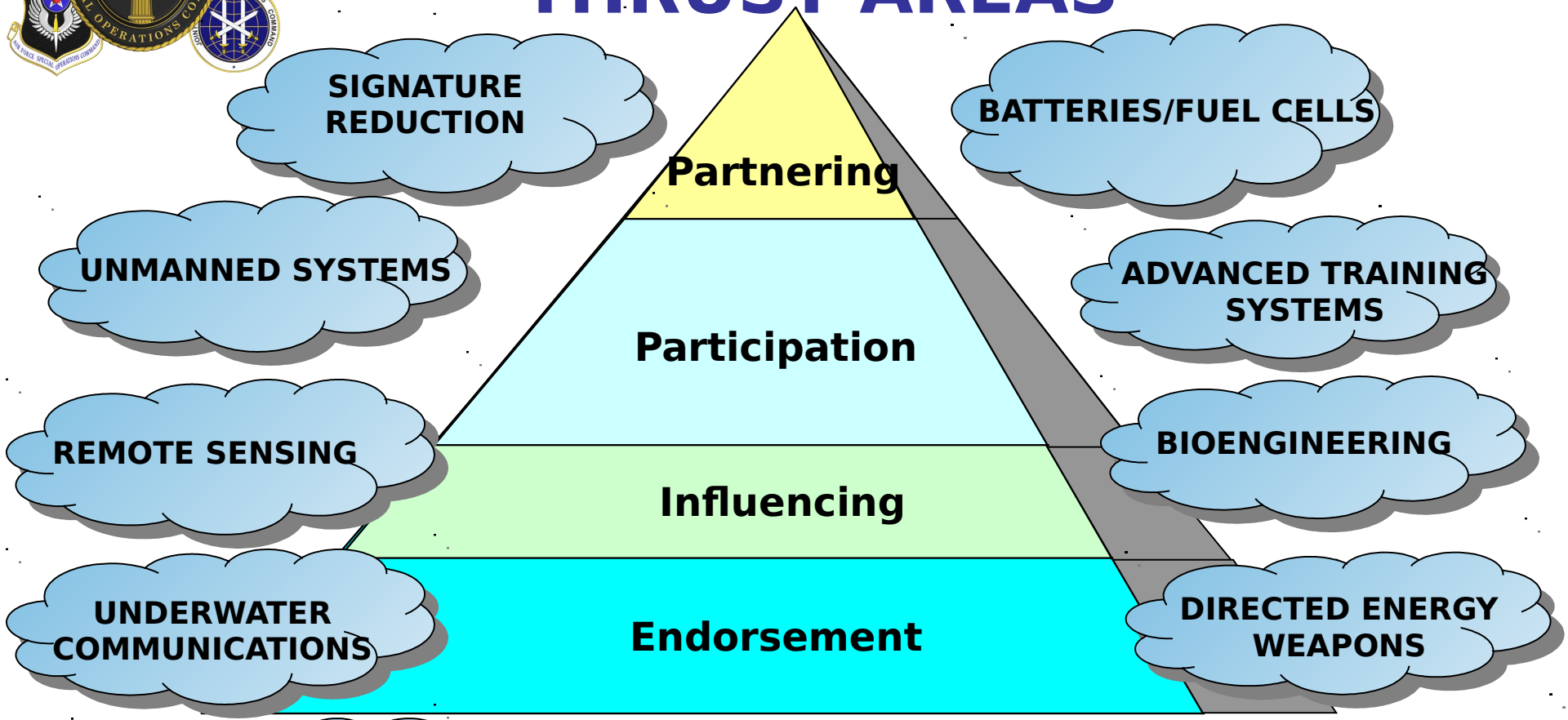
SOF Medical Technology Development

Special Operations Special Technology

Small Business Innovation Research



LEVERAGING TECHNOLOGY THRUST AREAS

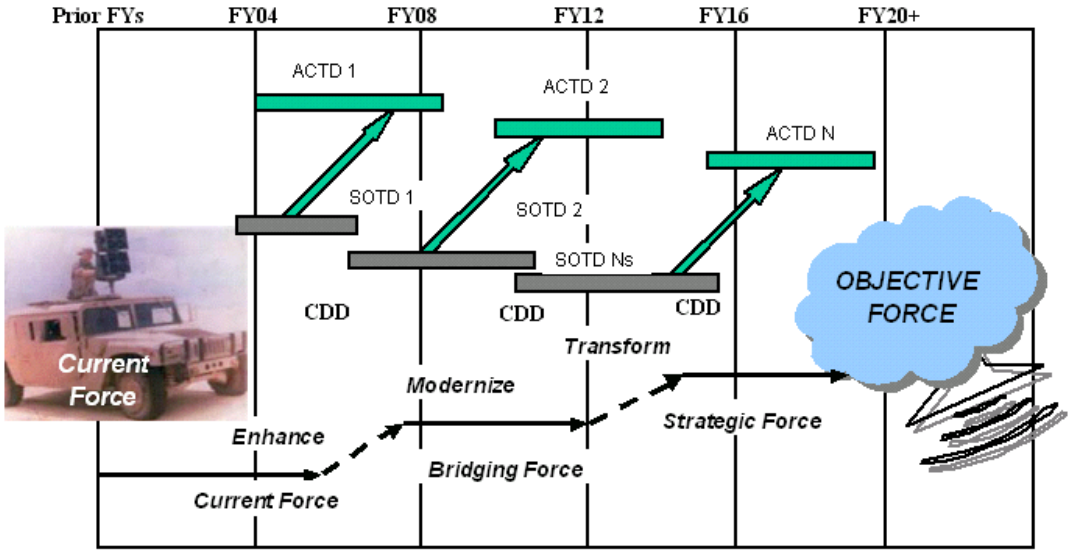


GREATEST OPPORTUNITY FOR OPERATIONAL PAYOFF

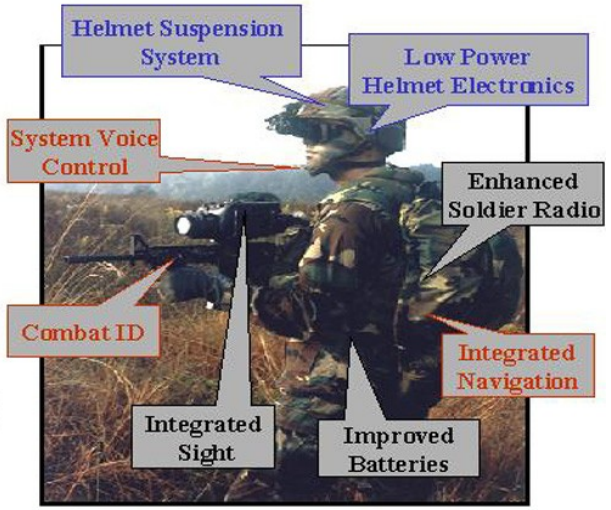
TECHNOLOGY ROADMAPS

- **Technology Roadmaps Link the Technology Base to Concept Based Requirements by Projecting Near-, Mid-, and Long-term Development Options**

- **Technology Roadmaps Are Being Developed For Each of the Technology Thrust Areas**



"INDIVIDUAL AS A PLATFORM"



Capabilities/Areas of Concern:

- Enhanced protection, armor, lightweight sustainment systems
- Enhanced weaponry and night vision devices
- Signature management in all environments. See the enemy regardless of concealment
- We need to do this without increasing weight and complexity

Projects:

- Vehicle Camouflage System
- Tactical Personal Computer
- Color Night Vision Fusion
- Enhanced Situational Awareness for SOF

BATTERIES/FUEL CELLS

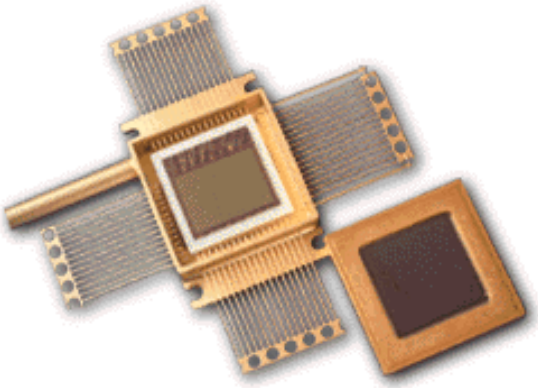
Capabilities/Areas of Concern:

- Power sources must be capable of continuous operation with minimal thermal, electromagnetic, acoustic, or visual signature and operate effectively underwater and underground
- Lightweight, small, maintenance free, versatile and

Projects:

- Battery Recharging System
- Power Source for ASDS/SDV

REMOTE SENSORS



Capabilities/Areas of Concern:

- Unmanned, semiautonomous, autonomous robotic systems (air, land, sea and future space) from tactical to nano size for missions requiring R&S, target designation, destruction and assessment, NBC activities and CP in deeply buried complexes

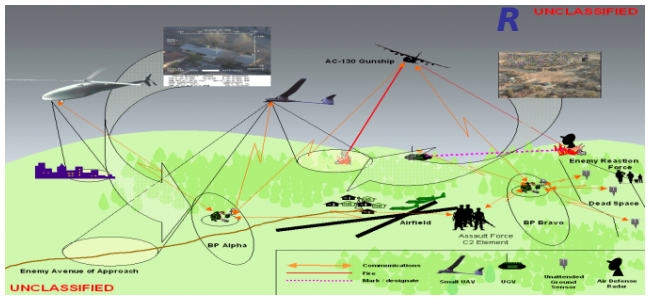
Projects:

- Miniaturized Robotics
- Micro Unmanned Vehicles
- Reconnaissance Technologies
- Remote Miniature Recon Vehicle

ADVANCED CONCEPT TECHNOLOGY DEMONSTRATION

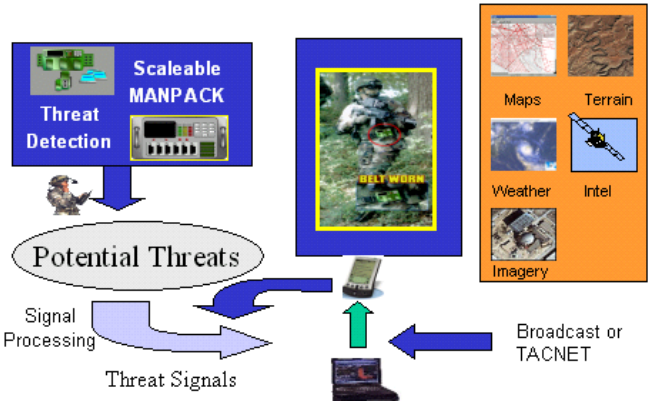
ATL

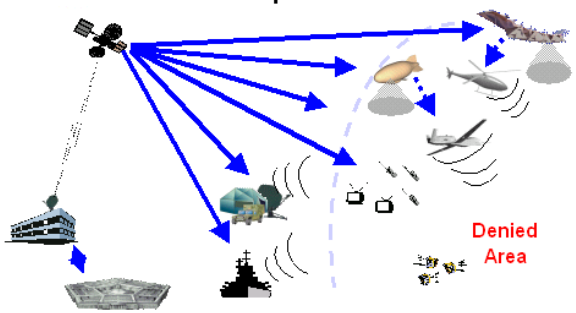
PATHFINDER



REQUIREMENT/DESCRIPTION:

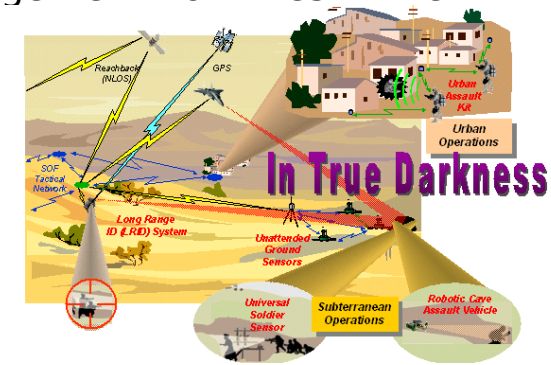
- OSD Program
- Provides USSOCOM With a Means for Integrating, Demonstrating, and Assessing New SOF-related Concepts and Technologies in a Joint Environment
- Typically Each Is a Two to Four Year Program Resulting In a Residual or Prototype for MUA, Logistically Supported for Two Years
- ACTDs Can Bridge the Gap Between Technologies and Acquisition
- SOAL-T Exercises Overall Coordination of USSOCOM Participation and Management Activities in the





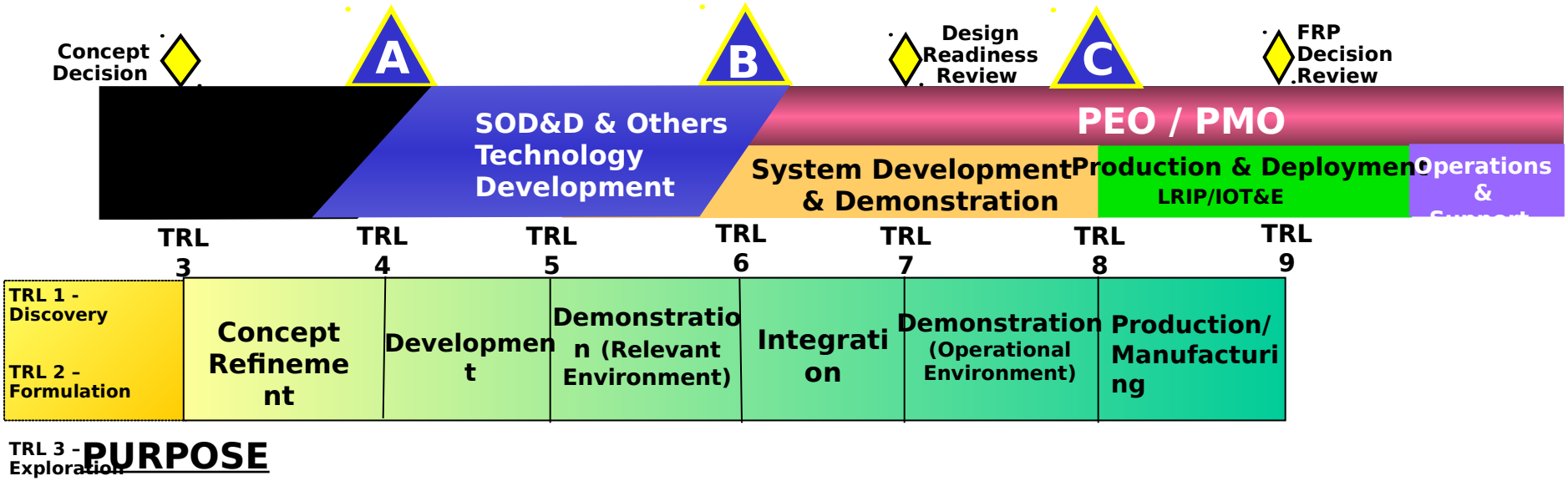
Long Range Dissemination into Denied Areas

PSYOP GLOBAL REACH



NVCUA

TECHNOLOGY MANAGEMENT AND TRANSITION MODEL (TMTM)



PURPOSE

- ***Provide a Process*** **Supporting Planning, Conducting, Managing and Transitioning Technology Programs for Acquisition and Fielding**
- ***Establish Success Criteria*** **in Line With the Use of Technology Readiness Levels (TRL) and DoD Acquisition Policies**
- ***Standardize*** **Planning, Documentation, Execution and Review of Technology Programs**
- ***Provide Improved Transition*** **of Technologies Into Acquisition Programs**
- ***Provide for PEO/PM & USER Involvement*** ***Early*** **on and Throughout the Process**

URGENT DEPLOYMENT ACQUISITIONS

CMNS Requirement	IOC
Laser Targeting Devices	7 days
Remote Camera Controller	11 days
Coalition Video Teleconferencing	4 wks
All Terrain Vehicles	5 wks
Standoff Explosive Detection System	7 mos
Man-Portable Decontamination	10 mos
Small Unmanned Aerial Vehicles	6 mos
Leaflet Delivery System	8 mos
Remote Observation Post	9 mos
Personnel Tracking System	6 mos
HAVE CSAR (Search & Rescue Tool for MH-47Ds)	6 mos
Remote Weather Station	7 days
Safe House – Force Protection Equipment	21 days
AC-130 All Light Level TV Replacement	Est 23 mos
Hardened Sport Utility Vehicles	6 wks
Specific Emitter Identification	5 mos
Individual Thermal ID Devices	12 wks
VHF Repeater For IntraTeam Communications	12 wks

SOME NOMINATED TOPIC AREAS FROM FY05 SELECTION PROCESS

- All Terrain and All Environment Kit to Negotiate Obstacles
- Advanced Fuel Cells
- Advanced Composite Ballistic Protection
- Improved Data Compression/Waveform Program
- Advanced 3D Imaging Systems
- Enhanced Antennas
- Advanced Reconnaissance and Surveillance Equipment
- Enhanced Signature Suppression for 5.56mm & 7.62m LMG

WHERE WE'RE GOING

- Responding to Commander's Vision
- Anticipating User Needs
- Developing Technology Roadmaps
- Identifying and Applying Advanced Technology From Service Labs, DARPA, DOE, and Industry
- Continuing Initiatives to Rapidly Transition Technology Programs Into Acquisition

SUMMARY

- **Focus Technology on the Global War on Terrorism (GWOT)**
- **Enhance Warfighter Capabilities**
- **Support SOF Transformation**

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SPECIAL OPERATIONS COMMAND
AIR FORCE SPECIAL OPERATIONS COMMAND
UNITED STATES
OPERATIONS COMMAND